

METHOD AND APPARATUS FOR PROCESSING  
SIGNALS IN AN ARRAY ANTENNA SYSTEM

ABSTRACT OF THE DISCLOSURE

An antenna system (10), includes a plurality of antenna elements (21-25). Respective analog signals corresponding to respective antenna elements are subjected to respective phase shifts, are digitized using one-bit samples, are then subjected to an equal and opposite phase shift, and are subsequently combined so that the fundamental components add coherently and the harmonic components add noncoherently. A digital-to-analog converter is supplied with successive samples, and produces in response to each sample a pulse having a duration which is less than the time period between successive samples.